

ABSTRACT OF THE DISCLOSURE

A refrigerator has a discharge three-way valve (8) for connecting the discharge side of a compressor (1) to at least either a hot water heat exchanger (3) or an air heat exchanger (6) and has a suction three-way valve (9) for connecting the suction side of the compressor (1) to at least either the air heat exchanger (6) or a cold water heat exchanger (4). In an operation primarily for cooling, a controller (19) regulates the opening of the discharge three-way valve (8) such that a refrigerant with a flow rate higher than a minimum flow rate ( $Q_s$ ) determined based on an outside air temperature flows to the air heat exchanger (6).